

DEPLOYABLE ANTENNA WITH FOLDABLE RESILIENT MEMBERS

Abstract

A framework for a deployable antenna is disclosed herein. The framework basically includes a plurality of elongate ribs, a matching plurality of foldable resilient members, and a hub. Each of the elongate ribs has both a proximal end and a distal end. The foldable resilient members serve to interconnect the proximal ends of the elongate ribs to the hub. Within such a configuration, each of the foldable resilient members is capable of storing strain energy whenever forcibly folded and also releasing the strain energy whenever subsequently permitted to elastically unfold. Thus, whenever the elongate ribs are released from a stowed position in which the foldable resilient members are forcibly folded, the strain energy causes automatic deployment of the antenna as the foldable resilient members are permitted to elastically unfold. In sum, therefore, the framework obviates many conventional uses of electro-mechanical motors or actuators in deploying various antennas.